REMARKS

Status of the Claims

Claims 63 – 82 were pending in the application.

Claims 63, 64, 69 – 71, 73 – 78, 80 – 82 have been rejected.

Claims 65 – 68 have been withdrawn.

Claims 72 and 79 have been objected to.

By way of this amendment, claims 63, 64, 69, 72 and 79 have been amended and new claim 83 has been added.

Upon entry of this amendment, claims 63 – 83 will be pending.

Summary of the Amendment

Claim 63 had been amended to more precisely define the invention. Support for the amendment can be found throughout the specification and specifically on pages 100 and 101.

Claims 63, 64 and 69 have been amended to correct obvious typographical errors.

Claim 72 has been rewritten as an independent claim. The scope of claim 72 is unchanged. The scope of claim 72 after this amendment is entered will be identical to the scope of claim 72 before this amendment is entered.

Claim 79 has been rewritten to be dependent on claim 72. The scope of claim 79 is unchanged. The scope of claim 79 after this amendment is entered will be identical to the scope of claim 79 before this amendment is entered.

New claim 83 refers to a specific embodiment of the invention.

Support for the amendments is found throughout the specification and claims as originally filed. No new matter has been added.

Restriction Requirement

Applicants have elected Group V, claims 63 and 64 (both in part), 69, 70 – 76 (all in part) in response to a restriction requirement. Claim 63 is a generic linking claim. Claim 64 is a Markush linking claim. Withdrawn claims 65-68 refer to a reasonable number of non-elected species which are covered by the linking claims.

Rejection under U.S.C. §112, first paragraph

Claims 63, 64, 69 – 71, 73 – 78, and 80 – 82 stand rejected under 35 U.S.C. 112, first paragraph, for allegedly failing to comply with the written description requirement. The Office asserts that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time of the application was filed, had possession of the claimed invention. More specifically, the Office asserts that the disclosure fails to provide definitive structural or functional features of the genus. Applicants have amended the claims and respectfully request reconsideration because the specification properly meets the written description requirement.

Claim 63 has been amended to specifically require that, in addition having a sequence with at least 90% sequence homology to SEQ ID NO:8, the DmGPCR4 binds to allatostatin. As amended, the claims clearly require that the DmGPCR4 has a specific function and structure: it binds to allatostatin and has at least 90% homology to SEQ ID NO:8. Claims 70 and 77 are further limited to DmGPCR4 that bind to allatostatin and has at least 95% homology to SEQ ID NO:8. Claims 71 and 78 are further limited to DmGPCR4 that bind to allatostatin and has at least 99% homology to SEQ ID NO:8. The specification clearly demonstrates that applicants were in possession of the claimed invention at the time the application was filed.

Applicants respectfully urge that based upon the disclosure in the specification, one skilled in the art would conclude that Applicants were in possession of the claimed invention at the time of filing the application. As noted above, a functional characteristic of the DmGPCR

has been expressly recited into claim 63, and therefore all claims which depend upon it. This functional characteristic is described in detail in the disclosure. The structural characteristic of the claimed invention, DmGPCR4 molecules with at least 90%, 95% or 99% homology to SEQ ID NO: 8 are similarly fully disclosed in the specification. One skilled in the art would recognize that the Applicants were in possession of the necessary functional and structural features of the genus of DmGPCR4 molecules that are recited in the present claims.

In view of the newly amended claims and the discussion above, the claims are adequately supported in the written description. Applicants disclosure is sufficient to reasonably convey to one killed in the art that Applicants were in possession of the claimed invention at the time the application was filed. The application is in compliance with the written description requirement of 35 U.S.C. § 112, first paragraph. Applicants respectfully request that the rejection under 35 U.S.C. § 112, first paragraph, be withdrawn.

Rejection under U.S.C. §112, second paragraph

Claims 75, 76, and 82 stand rejected under U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Applicants traverse the rejection and respectfully request reconsideration because the claims are clear and definite.

Claims 75, 76, and 82 are alleged to be vague and indefinite because the meaning of the phrase "one or more binding properties of the binding modulator" is not clear. (Office Action, page 5). Applicants draw attention to the specification, which reads in pertinent part:

> The polypeptides of the invention are employed as a research tool for identification, ***characterization***, and purification ***of interacting regulatory proteins***. Appropriate labels are incorporated into the polypeptides of the invention by various methods known in the art and the polypeptides are used to capture interacting molecules. For example molecules are incubated with the labeled

> polypeptides, washed to remove unbound polypeptides, and the polypeptide complex is quantified. Data obtained using different concentrations of polypeptide are used to calculate ***values for the number, affinity and association of the polypeptide with the protein complex***.

(Specification, pages 49 -50, emphasis added). As one skilled in the art would readily understand, one skilled in the art could collect data and identify the values associated with and between a given DmGPCR sequence and a modulator, the specification provides more direction as to the type of binding assays one skilled in the art can use to characterize the binding of the modulator to the DmGPCR sequence. For example, the specification includes, but is not necessarily limited to, assays such as yeast two hybrid experiments (Specification, p. 47), monitoring reporter gene expression (Specification, p. 48), or any assays described and incorporated into the specification throughout U.S. Pat No. 5,585,277 (Specification, p. 48). One skilled in the art would recognize that, by employing any one of the methods described above, one could obtain "one or more binding properties of the binding modulator."

The claims are clear and definite. One skilled in the art would readily appreciate the metes and bounds of the claimed subject matter. The application is in compliance with the requirements of the second paragraph of section 112. Applicants respectfully request that the rejections under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claim Objections

Claims 63, 64, and 69 – 82 are objected to because of minor informalities. Claims 63, 64 and 69 have been amended to correct the obvious error with respect to the spelling of allatostatin.

Claims 63, 64, and 70 – 82 are objected for reciting non-elected subject matter. Claim 63 and 64 are linking claims. Upon determination of the allowability of the elected species, the linking claims may be rejoined and examined.

Applicants respectfully request withdrawal of the objections to claims 63, 64, and 69 – 82.

Conclusion

Claims 63 – 83 are in condition for allowance. A notice of allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any deficiencies of fees and credit of any overpayments to Deposit Account No. 50-0436.

Respectfully submitted,

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